



# FEMA

## *Project Slows Flash-Flood Waters, Making Neighborhood Safer*

**Santa Cruz County, AZ** - To address these serious flood problems, Santa Cruz County adopted a new floodplain ordinance in 2001 to prevent future development in flood prone areas and restricts certain activities in the designated floodplain.

But the new regulations proved to be inadequate to address the long-term flood storage and drainage problems that plagued the community of Rio Rico. During the first week and a half of the July 2006 monsoon season, Santa Cruz County's Flood Control District used all of their budgeted overtime for the entire year cleaning debris on the streets left by floods - up to 18 inches of mud, rock and woody debris.

The State of Arizona made FEMA hazard mitigation funds available to communities following a 2003 wildfire disaster declaration (1477-DR-AZ - the Aspen Fire on Mount Lemmon). Santa Cruz County applied for and was awarded funding for a two-part hazard mitigation grant to address repetitive damage done by flooding.

The first part of the project consisted of removing the crown from Calle Azulejo and replacing the paving in a V-shape to channel water down the middle of the road instead of propelling the water and flood debris over the crown and into private property on the downhill side of the drainage. In addition, large rip-rap was added at the foot of the hill next to the road to further direct the water and to prevent erosion.

The second part of the project involved the purchase of two land parcels and the construction of a detention basin at the top of the hill above the homes of this subdivision for the purpose of slowing the flow of water during and following heavy rain storms. The detention basin covered seven acres of land where two natural drainages converged and had a maximum capacity of approximately nine feet deep with a spillway designed for a 500-year flood event (a flood that has a .2-percent-chance of being equaled or exceeded in any given year).

When completed, this project will have not only protected lives and homes, but will have also saved Santa Cruz County hundreds of thousands of dollars in cleanup costs. "We use crew and equipment time to clean up the debris every time we get an inch or so of rain," explained John Hays, Floodplain Coordinator of the Santa Cruz County Flood Control District. With this project completed, that cleanup expense will have been dramatically diminished.

Photo 1: Flash flood waters sweep down the hill and across Calle Azulejo in Rio Rico, AZ during a summer monsoon. Photo Courtesy of Santa Cruz County Flood Control District

Photo 2: Calle Azulejo after being repaved into a concave v-shape to help direct flood waters down the middle of the street.



**Santa Cruz County,  
Arizona**



### **Quick Facts**

Year:

**2003**

Sector:

**Public**

Cost:

**\$432,053.00 (Estimated)**

Primary Activity/Project:

**Flood Control**

Primary Funding:

**Hazard Mitigation Grant Program (HMGP)**